REMARKS/ARGUMENTS

This amendment is submitted in response to the Office Action dated June 20, 2003 and to the Personal Interview that was held in Examiner Katcheves' office on September 16, 2003. Reconsideration and allowance is respectfully requested in view of the remarks made below.

1. The Drawing Objections

The originally filed informal Drawings were objected to in the Office Action because of the inclusion of text. In response to the Objection, attached is a set of formal Drawings that are believed to be in compliance with the applicable regulations. Entry of the formal Drawings and withdrawal of the objection that was applied in the Office Action is respectfully solicited.

2. The Prior Art Rejections and the Personal Interview

Examiner Katcheves is thanked for the courtesy that was extended to the undersigned and the inventor, Mr. Cyril Silberman, in the personal interview that was held on Tuesday, September 16, 2003. In the interview, Mr. Silberman briefly explained his background and the background of his company, Uni-Systems, LLC. Mr. Silberman then proceeded to demonstrate for the benefit of the Examiner a graphical display on his laptop computer illustrating an embodiment of the present invention.

Mr. Silberman then proceeded to explain the structural significance and characteristics of what is referred to in the specification and claims as a tied arch. As was explained on page six of the originally filed specification:

> According to one particularly advantageous feature of the invention, each of the major trusses 36, 38 are structurally configured as a tied arch having a curved convex upper portion and a lower portion that is shaped, sized and positioned to assume most gravity induced stress within the major truss as tension. This permits elimination of most or all diagonal structural elements within the major trusses, which has two advantages. First, in the event that a spectator it is forced to look through a portion of one of the major trusses, disability will not be unnecessarily impaired by the presence of a large number of diagonal structural elements. Second, and more importantly, the tied arch configuration permits the major trusses to be substantially lighter in weight than would be required with conventional trusses.

In a tied arch, the lower portion is shaped, sized and positioned to assume most of the gravity induced stress within the major truss as tension.

Claims 1-7 were rejected in the Office Action based on US Patent 5,257,481 to Reppas et al. ("Reppas"). This reference discloses a retractable dome for a stadium having a plurality of arcuate support rails 26, which are referred to in the Office Action as arched trusses. It is important to understand, however, that the reference does not disclose any structure that could reasonably be deemed to be a tied arch. The arcuate support rails 26 are anchored at their distal ends to a structural support ring that extends around the periphery of the stadium roof and further engages the respective ends of the other support rails 26 as well. In this type of structural design, it is necessary to have support rails 26 extending in a number of different directions in order to prevent ovalization of the structural support ring. There are no tensioned lower portions in the Reppas design that extend directly beneath the support rails 26 and that assume most of the gravity-induced stress therein as tension, as amended claim 1 requires. The structural support ring is not directly beneath the support rails 26. Moreover, the gravity-induced stresses from the arch are not absorbed within the support ring as pure tension- compressive stresses as the support ring is stressed are passed onto the underlying supports as compression.

In an alternative interpretation of the reference wherein the arches 40 are considered to be the purported "tied arch," Applicant points out that they cannot actually be considered tied arches because they are set in concrete footings that are anchored within the underlying soil. Neither soil nor concrete are considered by structural engineers as being capable of withstanding significant stress in tension. Accordingly, stresses that are passed on from the arch 40 to the footings will be absorbed primarily as compression of the soil that is at the outboard ends of the concrete footings, rather than as tension on the soil that is between the footings.

At the conclusion of the interview, Applicant agreed to provide these remarks describing what a tied arch is and how it is not taught or disclosed by the references of record.

The concept of the tied arch is included in independent claims 1 and 19. Independent claim 25 has been amended to include the limitations of original claim 27, which was indicated in the Office Action as being drawn to allowable subject matter. Newly presented independent claim 30 is original claim 22, indicated as being drawn to allowable subject matter, in independent form.

Accordingly, Applicant respectfully submits that all claims should be in condition for allowance.

3. Conclusion

Applicant has made an earnest effort to place this application in condition for allowance. If the Examiner feels that a telephone interview would expedite prosecution of this patent application, he is respectfully invited to telephone the undersigned at 215-599-0600.

Respectfully submitted,

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Date: 10/24/03

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